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ABSTRACT

Vocational education's primary goal--to prepare people for work--underscores the vital role the discipline can play in upgrading the employability of disadvantaged youth. Those who have received vocational training are more likely to stay in school and receive higher salaries than other workers with comparable education at every level from high school through two years of college. Moreover, students are better able to plan and make mature career choices because their intrinsic needs of competence, integrity, and pride are provided for as integral parts of vocational programs. This type of education is particularly appropriate for the disadvantaged since it is goal oriented, provides self-identity, is action oriented, builds confidence, provides adult role modeling opportunities, and provides tangible forms of success. Vocational programs are oriented toward four goals which benefit alienated disadvantaged youths since they (1) connect school and work over time; (2) provide skill training in occupational areas for which the demand exists; (3) meet individual needs through specifically tailored programs; and (4) develop, conduct, and administer programs in cooperation with other education and community agencies. Currently there is a problem of accessibility to vocational programs for disadvantaged youth since facilities and other resources are scarce when compared to the number of potential users. The intent of the new Youth Initiative is to pull all services together for disadvantaged youth: vocational education can play a central role in this effort.

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American Vocational Association
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March 13, 1980

RATIONALE AND JUSTIFICATION
FOR
VOCATIONAL EDUCATION'S ROLE
IN
YOUTH EMPLOYMENT PROGRAMS

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

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DISADVANTAGED YOUTH: WHO ARE THEY?

Our country has a growing population of young people whom we have labelled disadvantaged. They represent our greatest untapped human resource. We desperately need to make them a part of the American economic system.

Who do we mean when we talk of the disadvantaged youth? These youth are distinguished by much more than the backgrounds of poverty and hopelessness from which they come.

They are frustrated, resentful, disruptive, bored. They feel powerless in the face of barriers of poverty, disease, discrimination and basic ignorance. America to them is an impenetrable system which deprives them of many of the options which constitute freedom.

The majority, though far from all of these young people, live in the inner city. There they wrestle daily with realities that most of us can scarcely imagine. They are frequently a part of large families living in close quarters, often without even the most basic necessities such as hot water, adequate plumbing or heat. Their stomachs are usually empty. Drugs and alcohol are more readily available than milk and vegetables.

Crime is as close as the nearest corner. It is easier to "hang out" with the crowd in the neighborhood than to find a way out. If they do search for a job, they meet with little success for they have little to offer a prospective employer. They are the people behind the alarming youth unemployment statistics.

Where local communities lack the resources to provide comprehensive school-to-work programs, public schools do not work for these youth. In fact, disadvantaged youth view the schools with bitterness and distrust -- indeed, as the system's trap. These youth, who are struggling simply to survive, can see no usefulness in schools. In the daily educational routine, there seems to be little of a practical nature which they can see as offering a way to a better life. More frequently as not, they have abandoned formal education by age 16.

Since they seldom come in contact with "educated" people in their daily lives, few disadvantaged youth have any conception of how education can provide a stepping stone to a better future. Their role models for the most part survive through the welfare dole or through crime.

Providing values and hope for these students is more than our educational system is currently prepared to handle adequately. Most educators realize that these students require special help, extra attention, an educational emphasis that goes far beyond just teaching them reading or math or English.

Before these students can learn, they must want to learn. They must believe that through learning they will find a way out of poverty and hopelessness.

And they must believe that they can learn. By the time most disadvantaged youth reach the teen years, they have already gone through years of failure in school.

VOCATIONAL EDUCATION'S CAPACITY

Yet the public schools do have a built-in capability for meeting the needs of disadvantaged youth. It is called vocational education. The goal of vocational education -- to prepare people for work -- is one that any disadvantaged youth who struggled to find a job can understand.

Vocational education provides disadvantaged youth with a core of job-oriented learning experiences which give vitality to the education experience. It combines the critical ingredients of creative, committed staff, concrete skills training, instruction in basic and interpersonal skills and a range of supportive services designed to undergird the learning process.

With proper planning, effective utilization and adequate resources, we believe that vocational education can be the vehicle to get disadvantaged youth off the streets and onto a productive path within the nation's social structure.

THE EFFECTIVENESS OF VOCATIONAL EDUCATION

Any analysis of vocational education's effectiveness must begin with a clear understanding of who it is that vocational education serves.

Research tells us that vocational education students have traditionally come in greater proportions from the lower socio-economic ranks and have been students who as a group demonstrated less academic ability than their peers.

The three major, national longitudinal studies conducted in the past twenty years -- Project Talent, the Longitudinal Study of Labor Market Experience, conducted by John T. Grasso and John R. Shea and the USOE Senior Study show that secondary vocational education students are one standard deviation below college-bound students and one-half standard deviation below the general student in academic ability. Further, vocational students come, in much greater proportion, from the two lower socio-economic quartiles than students from the academic and general tracts, according to these studies.

In 1978, according to USOE figures, vocational education served approximately two million disadvantaged students with a federal set-aside investment of approximately \$100 million, amounting to \$50 per student. (These figures do not take into account the large numbers of disadvantaged students who do not require additional special services.) Clearly, vocational educators are committed to serving disadvantaged youth.

Vocational education develops human capital by developing the total individual. Through vocational programs, students mature into adult roles, not only through basic and technical skills acquisition, but also through learning experiences which deal with personal and interpersonal skills. Vocational education influences individuals in their school lives, work lives and in their personal development.

(1) Vocational Education Benefits Individuals in Their School Lives

Vocational programs can provide a place for disadvantaged students to become a part of the group and belong. Disadvantaged, alienated youth need a sense of purpose and a reason to stay in school and learn. These students need some sort of niche -- a base from which they can move toward achievable goals. Vocational programs give them that base.

Evidence of the effectiveness of vocational education programs for disadvantaged students was set forth by Sue Berryman¹ (1979) in a paper prepared for the Rand Corporation and presented at the Aspen Institute. Berryman said:

When we look at this array of variables, we see a group that relative to one or both of the other curricular groups: 1) comes from the socio-economically lower status families in the community; 2) does not do well at what schools tend to define as their highest status mission -- cognitive development; 3) is not part of the high school's extracurricular structure; 4) rates the quality of the school positively; 5) is not alienated from the high school; 6) does not regard themselves as having been channeled into their curriculum; 7) wants money, steady work, and a happy family out of life; 8) prefers to work after high school; 9) selects practically (technical/vocational postsecondary education);

¹Sue Berryman, "Vocational Education and the Work Establishment of Youth: What Combination and for Whom?", Rand, Santa Monica, CA, August 1979 (Working draft)

10) has higher postsecondary employment rates and higher numbers of hours worked per week; and 11) is more satisfied with jobs as a whole and with their specific dimensions.

This is a group that does not connect into the high school by excelling academically or through participation in extracurricular activities. However, these students do not evidence the alienation from school or other negative school attitudes that we might expect. In fact, they evidence less of these than the general students.

I suggest that the vocational curriculum accounts for this surprising combination of "outcomes". It gives these students a niche in the high school and a future direction with which they can identify.

Further, the evidence shows that vocational education has a certain "holding power" which keeps young people from dropping out of school. Findings from one such study, from a technical school in a St. Louis, Missouri² school district, appear as Table 1. As can be seen in the totals, more than 80 percent of the class of 1977 stayed in school and graduated from their vocational programs. Grasso and Shea also found that for students who complete 10 units of school, vocational education raises the possibility of their completing grade 12.

A statewide survey in Texas³ of graduates of various vocational programs sought views of former high school students after five years of work experience. Table 2 shows their responses concerning the helpfulness of vocational education in: preparing graduates for first jobs, expediting learning by doing and understanding, developing good work attitudes, and exploring career opportunities.

In a 1979 report produced as part of the USOE Senior Study⁴, students expressed their feelings about high school four years later -- in 1976, and 64 said that "School should have placed more emphasis on vocational and technical programs."

Grasso and Shea⁵ found that vocational education turns students on to further education. They state that vocational students are as likely as their general education counterparts to receive post-school training. However, vocational students' post-school training is more diverse in nature. This suggests that secondary vocational education helps youth understand that learning can occur in a variety of settings.

These findings serve to prove that vocational education can make a major difference in how many students feel about school. Over time, disadvantaged youth can learn how to learn as well as discovering the importance of learning to their future work lives.

²"Follow-up Study of Vocational Students: Special School District, St. Louis County, MO, 1977.

³"Learning by Vocations: Views on Vocational Education by Former High School Students After Five Years of Real-Life Experiences" Summary of a survey conducted by the Advisory Council for Technical/Vocational Education in Texas, 1978.

⁴Bruce K. Eckland and Joseph M. Wisenbaker, "National Longitudinal Study: A Capsule Description of Young Adults Four and One-Half Years After High School, Center for Educational Research and Evaluation, prepared for USOE, February, 1979.

⁵John T. Grasso and John R. Shea, Vocational Education & Training: Impact on Youth, A Technical Report for the Carnegie Council on Policy Studies in Higher Education, 1979.

TABLE 1

**SPECIAL SCHOOL DISTRICT OF ST. LOUIS COUNTY
VOCATIONAL-TECHNICAL EDUCATION**

NORTH COUNTY TECHNICAL SCHOOL

HOLDING POWER OF STUDENTS ENROLLED

Program	1973 Class			1974 Class			1975 Class			1976 Class			1977 Class		
	Enter 1971	Grad 1973	Per Cent	Enter 1972	Grad 1974	Per Cent	Enter 1973	Grad 1975	Per Cent	Enter 1974	Grad 1976	Per Cent	Enter 1975	Grad 1977	Per Cent
1. Air Conditioning	20	17	85.0	23	21	91.3	44	41	93.2	42	35	93.3	39	34	87.2
2. Airframe & Powerplant	----	----	-----	----	----	-----	20	18	90.0	21	20	95.2	20	18	90.0
3. Auto Body	20	19	95.0	22	21	95.5	23	15	65.2	21	21	100.0	22	22	100.0
4. Auto Mechanics	21	21	100.0	22	21	95.5	41	39	95.1	42	39	92.8	42	36	85.7
5. Building Main. Mech.	----	----	-----	----	----	-----	----	----	-----	22	17	77.2	21	17	81.0
6. *Business and Office Ed.	37	27	73.0	35	34	97.1	52	47	90.4	54	44	81.4	42	41	97.6
7. Child Care Assistant	----	----	-----	----	----	-----	27	17	63.0	20	16	80.0	21	16	76.2
8. Cosmetology	----	----	-----	----	----	-----	17	16	94.1	22	16	72.7	22	22	100.0
9. Diesel Truck Mechanic	----	----	-----	----	----	-----	21	20	95.2	20	17	85.0	21	19	90.5
10. Electronic Data Proc.	53	46	86.8	56	52	92.9	60	54	90.0	58	47	81.0	61	55	90.2
11. Eng. Graphics/Drafting	19	12	63.2	19	16	84.2	23	20	87.0	20	14	70.0	22	14	63.6
12. Fitter Welder	21	18	85.7	19	18	94.7	40	39	97.5	42	36	85.7	44	40	90.9
13. Graphic Production Art	20	14	70.0	22	18	81.8	22	13	86.4	19	15	78.9	21	18	85.7
14. Industrial Electronics	37	31	83.8	22	19	86.4	39	32	82.1	42	38	90.4	44	39	88.6
15. Machine Shop	43	35	81.4	38	34	89.5	64	50	78.1	62	49	79.0	67	58	86.6
16. Major Appliance Tech.	18	13	72.2	20	17	85.0	22	14	63.6	20	15	75.0	17	15	88.2
17. Office Equipment Tech.	----	----	-----	----	----	-----	22	17	77.3	22	18	81.8	21	14	66.7
18. Offset Lithography	20	20	100.0	19	16	84.2	22	19	86.4	42	39	92.8	39	33	84.6
19. Ornamental Horticulture	37	27	81.8	38	30	78.9	39	27	69.2	44	33	75.0	41	28	68.3
20. Radio and Television	19	15	78.9	20	16	80.0	18	16	88.9	21	15	71.4	21	19	90.5
21. Sheet Metal	20	18	90.0	19	14	73.7	18	14	77.8	20	16	80.0	20	15	75.0
22. Small Engine Repair	----	----	-----	----	----	-----	22	21	95.5	20	19	95.0	20	19	95.0
TOTALS	401	333	83.0	394	347	88.1	656	555	84.6	696	579	83.2	688	592	86.0

*Business and Office Education is a one year program, therefore, the entry date would be the following year; 1971 would be 1972.

TABLE 2

STATEWIDE SUMMARY OF RESPONSES BY VOCATIONAL EDUCATION PROGRAM OF RESPONDENTS

PREPARE FOR 1ST JOB?										LEARN BY DOING AND UNDERSTANDING?									
	AG	DE	HO	UH	EH	OE	T&I	ROW TOTALS		AG	DE	HO	UH	EH	OE	T&I	ROW TOTALS		
Not Answered	0	2	2	1	0	2	4	3	14	1	2	5	1	0	2	5	9	25	
	0	1.4	.5	1.2	0	1.6	.6	.6	.7	4.5	1.4	1.2	1.2	0	1.6	.8	1.8	1.3	
Very Helpful	8	61	168	47	6	46	429	238	1007	5	78	161	52	12	56	391	283	1042	
	36.4	41.5	41.9	58.0	24.0	35.7	68.2	48.6	52.1	22.7	53.1	40.1	64.2	48.0	43.4	62.2	57.8	54.0	
Some Help	8	60	163	23	11	47	155	142	610	10	53	166	18	9	52	193	131	633	
	36.4	40.8	40.6	28.4	44.0	36.4	24.6	29.0	31.6	45.5	36.1	41.4	22.2	36.0	40.3	30.7	26.7	32.8	
Don't Know	1	3	7	2	2	0	6	14	35	4	4	22	3	1	7	14	25	81	
	4.5	2.0	1.7	2.5	8.0	0	1.0	2.9	1.8	18.2	2.7	5.5	3.7	4.0	5.4	2.2	5.1	4.7	
Very Little Help	4	12	38	6	3	17	18	49	148	2	5	32	7	3	8	19	32	109	
	18.2	8.2	9.5	7.4	12.0	13.2	2.9	10.0	7.7	9.1	3.4	8.0	8.6	12.0	6.2	3.0	6.5	5.6	
No Help At All	1	9	23	2	3	17	17	44	117	0	5	15	0	0	4	7	10	41	
	4.5	6.1	5.7	2.5	12.0	13.2	2.7	9.0	6.1	0	3.4	3.7	0	0	3.1	1.1	2.0	2.1	
COLUMN TOTAL	22	147	401	81	25	129	629	490	1931	22	147	401	81	25	129	629	490	1931	
	1.1	7.6	20.8	4.2	1.3	6.7	32.6	25.4	100.0	1.1	7.6	20.8	4.2	1.3	6.7	32.6	25.4	100.0	

DEVELOP GOOD WORK ATTITUDES?										EXPLORE CAREER OPPORTUNITIES?									
	AG	DE	HO	UH	EH	OE	T&I	ROW TOTALS		AG	DE	HO	UH	EH	OE	T&I	ROW TOTALS		
Not Answered	0	1	2	1	1	5	5	15	0	4	2	0	0	1	9	8	24		
	0	.7	.5	1.2	0	.8	.8	1.0	.8	0	2.7	.5	0	0	.8	1.4	1.6	1.2	
Very Helpful	10	82	215	48	13	77	349	262	1061	9	55	131	39	12	49	248	211	758	
	45.5	55.8	53.6	59.3	52.0	59.7	55.5	53.5	54.9	40.9	37.4	32.7	48.1	48.0	38.0	39.4	43.1	39.3	
Some Help	8	41	111	26	11	37	205	150	589	6	46	138	31	7	38	219	154	639	
	36.4	27.9	27.7	32.1	44.0	28.7	32.6	30.6	30.5	27.3	31.3	34.4	38.3	28.0	29.5	34.8	31.4	33.1	
Don't Know	1	13	22	1	1	4	20	36	99	1	15	33	1	0	10	34	38	134	
	4.5	8.8	5.5	1.2	4.0	3.1	3.2	7.3	5.1	4.5	10.2	8.2	1.2	0	7.8	5.4	7.8	6.9	
Very Little Help	1	7	35	5	0	6	35	26	116	5	17	54	7	3	17	87	46	237	
	4.5	4.8	8.7	6.2	0	4.7	5.6	5.3	6.0	22.7	11.6	13.5	8.6	12.0	13.2	13.8	9.4	12.3	
No Help At All	2	3	16	0	0	4	15	11	51	1	10	43	3	3	14	32	33	139	
	9.1	2.0	4.0	0	0	3.1	2.4	2.2	2.6	4.5	6.8	10.7	3.7	12.0	10.9	5.1	6.7	7.2	
COLUMN TOTAL	22	147	401	81	25	129	629	490	1931	22	147	401	81	25	129	629	490	1931	
	1.1	7.6	20.8	4.2	1.3	6.7	32.6	25.4	100.0	1.1	7.6	20.8	4.2	1.3	6.7	32.6	25.4	100.0	

Source: Advisory Council for Technical/Vocational Education in Texas

(2) Vocational Education Benefits Individuals in Their Work Lives

The "bottom line" of vocational learning rests squarely in the labor market and in the home. The most universally used yardsticks for measuring vocational education's effectiveness have been placement rates, length of employment and salaries. Statistically, vocational graduates fare much better in these areas than their peers who come from other curriculum areas.

Many states have documented the effectiveness of their programs in terms of employment rates, earnings, employer and employee satisfaction, mobility, relationship of placements to training, attitudes and postsecondary education. (See accompanying list of states and their studies.)

A recent report on findings from several public opinion surveys conducted by the National Center for Research in Vocational Education shows clearly the economic payoff of vocational training for workers. Salary information for respondents related to the level of educational attainment revealed that workers who had received vocational training earned higher salaries than other workers with comparable education at every level from high school through two years of college (See Table 3.)

State Effectiveness Studies

Why Johnny Can Work: An Analysis of Employers' Ratings of Secondary Area Vocational Technical Center Graduates. Pontiac, MI: Northeast Oakland Vocational Education Center, 1979.

A Follow-up of Former Vocational Students from the Roanoke City Public Schools 1975-76. Lloyd W. Enoch. Roanoke City Public Schools, Virginia. Department of Vocational and Adult Education, May, 1977.

Vocational Technical and Adult Education: Student Follow-up Study of 1974-75 Completions. Jim Preston. Sarasota County, Florida: Sarasota County Board of Public Instruction, May 21, 1976. ED 124.685.

Ghazalah, I. A. Longitudinal Study of Vocational Education Graduates and Utilization of Federal Income Tax Data. Columbus, Ohio. Ohio Department of Education, 1978.

A Follow-up Study of the Post-School Employment Success of Graduates from Four High School Special Education Programs in the Midwestern Intermediate Unit IV in Pennsylvania for the School Years 1969-70, 1970-71, and 1971-72. Final Report. Grove City, Pennsylvania: Midwestern Intermediate Unit IV, 1973.

Chart 3

Family Income by Educational Attainment of Respondents
with Two Years of College or Less, Who Had or Had Not Received Vocational Preparation

Income Ranges	Some High School		Completed High School		Attend 2-Year College		Completed 2-Year College		Total	
	Voc.	Non.	Voc.	Non.	Voc.	Non.	Voc.	Non.	Voc.	Non.
\$5,000	13	18	6	11	4	8	3	5	7	12
\$5,000-9,999	33	42	28	29	22	22	12	26	26	31
\$10-14,999	21	15	22	20	20	30	30	15	22	20
\$15-19,999	10	13	22	18	29	16	15	23	22	17
\$20-24,999	12	6	11	12	10	12	18	10	12	11
\$25-29,999	10	5	9	6	14	14	15	13	11	8
\$30-34,999										
\$35-39,999										
\$40-44,999 ^a	1	1	2	2	0	0	3	3	2	2
\$45-49,999										
\$50,000+	0	0	0	1	0	0	3	5	4	1
Number	52	95	125	309	49	51	33	39	259	394
Mean ^a	\$10,915	\$8,600	\$12,429	\$11,591	\$13,400	\$12,500	\$16,450	\$15,450	\$12,800	\$11,350
SD ^a	9,078	7,877	8,582	9,247	7,746	8,097	10,496	11,979	8,943	9,433
t	1.55, p > .05		.83, p > .05		.57, p > .05		.38, p > .05		1.98, p < .05	

Note: Percentages may not sum to one hundred due to rounding.

^aMean and SD calculated assuming equal distribution of responses through \$5,000 intervals.

Research also shows that vocational education facilitates the career maturity of secondary school students. Grasso and Shea⁷ report secondary vocational students' occupational goals were consistent with their curriculum choices. They further report that students in vocational programs were somewhat more likely to want jobs for which pre-employment preparation is available.

Further, Grasso and Shea also found that dropouts from secondary vocational programs did better in the work setting than did dropouts from the general curriculum. Not only did vocational training seem to result in better-paying jobs for these former students, they also tended to be employed to a greater extent in those occupations requiring pre-employment preparation than did dropouts from the general curriculum. Vocational program dropouts also showed greater mobility in the primary jobs than their general education counterparts and greater satisfaction in their jobs.

Studies concerning the extent of vocational education -- the amount of time in numbers of course hours -- reveal that increased time in vocational education results in increased employment. George Copa, et al.⁸, found that Minnesota vocational graduates do tend to come from the lower academic ranks, but fare better in further education and employment when they have experienced increased amounts of vocational education. Table 4 shows statistics for the Minnesota Class of 1978 one year after graduation.

⁷Grasso and Shea, 1979

⁸George H. Copa, Donald E. Irvin, Bary Forsberg, Nagi Salem, "On Measuring the Employment Effects of Secondary School Vocational Education: Minnesota Data and Experience", Minnesota Research and Development Center for Vocational Education, University of Minnesota, Minneapolis, January 1980.

TABLE 4

Students Taking and Not Taking Vocational Education in Minnesota
High Schools -- Class of 1978, One Year Later

Characteristic	Total	Students taking vocational education	Students not taking vocational education
Summary data			
Number	16,271	12,619	3,652
Percent ^a	100.0	77.6	22.4
High school rank percentile (%) ^b			
In upper 25%	26.9	21.5	45.8
In Lower 25%	20.9	24.0	10.2
Sex (%) ^b			
Female	50.5	55.1	34.8
Male	49.5	44.9	65.2
Educational activity after one year (%) ^b			
Vocational school	14.2	16.1	8.0
Community college	7.6	6.9	10.0
4 Year college	30.9	23.6	54.9
Employment activity after one Year (%) ^b			
Paid employment	64.1	67.8	51.9
Unemployed	6.8	6.5	7.9
Paid employment, only	35.5	40.6	18.5

^a Percentages are of the total number of students for which data was available -- 16,271.

^b Percentages are of the total number of students in the respective columns -- 16,271, 12,619, and 3,652.

Other evidence of vocational graduates' advantages in the labor market.

o The USOE Senior Study shows that:

- Vocational graduates generally required less time to secure their first job and then outearn other students.
 - Most vocational graduates reported that their training was important in the acquisition of their first jobs.
 - Students from vocational programs found greater relevance in their education in terms of job expectations than did students in other curricula.
 - Overall, graduates of the vocational curriculum seemed more satisfied with their jobs than did graduates of other curricula.
- o An article in Manpower noted that vocational students "obtain their first jobs more quickly and, subsequently, experience fewer and briefer spells of unemployment than others with a high school education".⁹
- o Project Baseline found that vocational education trained students, when unemployed, have shorter periods of unemployment.

Thus, the evidence is clear that vocational education makes an enormous difference in individuals -- in terms of employment, income, attitudes and diversity of further education/training.

(3) Vocational Education Benefits Individuals in Their Personal Development

An important dimension of vocational education, the complement of job/occupational preparation, is the instructional emphasis on other skills that make good employees. This aspect of the vocational education programs focuses on such things as leadership development, work discipline, work values, human relation skills, career decision-making and problem solving. All of these skills facilitate the development of youth toward an appropriate work identity -- and employment.

Historically, vocational education has aimed for an effective blend of intrinsic (competence, integrity, pride) and extrinsic (placement, salaries) benefits in the design of vocational programs.

Through vocational education, students are better able to plan and make mature career choices because they are helped in building qualities of character which enable individuals to shape goals and work diligently toward them.

In a report issued by the Arizona State Advisory Council on Vocational Education¹⁰, graduates of vocational programs indicated the benefits from vocational training which were most useful to them. At both the secondary and post-secondary level, graduates attached the most importance to: "Learning to cope, get along with customers, employers, employees, human relations, self-confidence, self respect and responsibility." Also of importance to these graduates was "psychological background for working, motivation, job-holding skills."

⁹ B. G. Reubens, "Vocational Education: Performance and Potential", MANPOWER, July '77, p. 905

¹⁰ "The Product Talks . . . Who's Listening?", The State Advisory Council on Vocational Education, Phoenix, Arizona, 1977

Vocational education prepares people for their adult roles in life. The emphasis is on the whole person - not just on specific occupational competencies.

VOCATIONAL EDUCATION CAN BE EFFECTIVE FOR INCREASED NUMBERS OF DISADVANTAGED YOUTH

The issue today is not whether vocational education is effective or whether it can work for disadvantaged youth. The evidence shows overwhelmingly that it can work for this population.

The critical role of vocational education in the growth process provides the basis of its effectiveness in helping disadvantaged youth. Vocational education helps young people move from the arenas of play and daydreams to adult work. There are six major contributions that vocational education makes to this growth process that can serve to move disadvantaged youth toward productive lives.

(1) Vocational Education Makes All of Education Goal-Oriented

Vocational education can help disadvantaged youth see -- often for the first time -- that education can get them somewhere. Students get excited about learning because they are given a chance at last to set educational goals that have a practical value. Vocational education teachers help young people to focus in on the future and make it hopeful -- worth working for.

(2) Vocational Education Can Provide Identity and a Place to Belong

A feeling of belonging -- an identity -- can be established among disadvantaged youth in vocational programs. Through extended periods of time spent with a particular adult, disadvantaged youth are taught how to learn. Alienation is eliminated, and the youth have a person(s) to whom they can relate and a place where they can fit in.

(3) Vocational Education Enables Students to Learn By Doing

Vocational education puts classroom instruction to use in work situations. These activities foster a climate of excitement as students practice what they have learned from books. Basic educational skills when applied in meaningful "real-life" activities are learned more thoroughly and retained longer than when they are learned only in the abstract.

(4) Vocational Education Allows Disadvantaged Youth to See and Experience Themselves in Constructive Adult Roles

The "playful" features of vocational education are serious and increase in importance upon examination. Playing at being a homemaker, a farmer, a builder, a businessperson provides a testing ground for mature social interaction. As students perform constructive tasks, they are able to develop a work orientation based upon the values of productivity, accomplishment, pride, responsibility and independence. Disadvantaged youth gradually adopt this work ethic through vocational education -- through laboratory, simulated, and actual on-the-job experiences which require precision and production. Students learn to identify with adults as well as with their peers and they adopt increasingly more mature strategies for coping with their problems.

(5) Vocational Education Builds the Confidence of Disadvantaged Youth

Through emulating adult role models, vocational students learn to be competent, to help each other, to make decisions, accept consequences, negotiate differences and risk making mistakes. Young people feel good about themselves, and they are able to get and keep jobs. Vocational education promotes five dimensions of human development: 1) a sense of personal competence, 2) aesthetic appreciation, 3) integrity, 4) cooperativeness, and 5) a heightened sense of altruism.

People fail to get, keep and advance in jobs more frequently because they lack personal qualities rather than because they lack technical skills. Vocational education emphasizes these personal qualities in conjunction with its emphasis on specific occupational skills.

(6) Vocational Education Provides Youth With A Tangible Form of Success

Vocational education activities are interesting to students. Team projects are constructive and enjoyable, and students walk away with visible products about which they feel real pride. The products connect school life -- where sloppy standards will not sell. Students become enthusiastic, their energy levels and inventiveness rise. They become involved, and, with excitement, can finally say, "Look what I did!"

THE UNIQUE CONTRIBUTIONS OF VOCATIONAL EDUCATION

To become employable and employed, disadvantaged youth need a well-designed program which combines training in basic skills, personal and interpersonal skills, and technical skills, coupled with on-the-job experiences and a wide range of support services. Educators can provide these essential features, through comprehensive vocational programs, in order to move disadvantaged youth from school to work.

Vocational programs are constructed to meet four important goals:

- To connect school and work over time;
- To provide skill training in occupational areas for which demand exists;
- To meet unique, individual student needs through specifically tailored programs;
- To develop, conduct and administer programs in cooperation with other educational areas and outside agencies.

(1) Vocational Education Connects Schools and Work

Vocational programs are designed to provide disadvantaged youth with a progressive, integrated pattern of on-the-job learning and related classroom instruction in basic and employment skills. This combined approach to learning can help disadvantaged youth obtain stable employment.

Job experiences are planned and based specifically on the needs and readiness of the individual student. In some cases, where students are not ready for private sector employment, more sheltered work experiences are provided. Work orientation and discipline are stressed so that in time students can move from youth jobs to adult jobs requiring technical know-how and maturity.

This progression allows each student to see the connection of continued in-school learning to jobs that become increasingly better. Students can clearly understand the relationship of the instruction to the requirements and demands of the job. Some of those connecting elements include:

- Basic Skills. Basic skills include written and oral communication links -- reading, writing, and speaking -- as well as computation skills. These basic skills are introduced at appropriate stages in connection with progressive technical skills.
- Educational Information. Information on types of occupations for which a student can train within a specific program, the cost, length of training, likelihood of employment, location of available jobs and qualifications needed to fill them must be a part of the instructional program.
- Labor Market Information. Information on characteristics of the labor market including current job vacancies, future estimates of vacancies, location of available jobs, wages, working indicators, job entry requirements and advancement possibilities must be made available to the students.
- Laws and Regulations. Students need to understand their rights and responsibilities under the law, as well as receiving information about organizations which can assist them.
- Skill training. Development of the expertise necessary to carry out a specific job. This training can take place in institutions, on the job, or in some combination of the two, such as cooperative work experience or apprenticeships.

In fact, vocational education can develop a number of different program designs which provide youth with a progressive pattern of on-the-job learning and related basic skills instruction. Successful models include:

A. Cooperative Vocational Education

As developed over the past several decades, cooperative vocational education is an effective program for coordinating on-the-job skill preparation with related school instruction. Studies show that persons receiving labor market information, job-seeking instruction and thorough cooperative vocational education have markedly higher earnings and occupational status as young adults than do students without such preparation.

Today more than one half million youth participate in cooperative vocational education, and most are placed in the private sector for on-the-job training. Upon completing their schooling, a full 50 percent of them stay on with their existing employers.

One such program which has been especially successful for disadvantaged youth is the Work Experience Career Experience Program (WECEP), which currently operates in seventeen states. This is a program for 14 and 15 year old disadvantaged youth.

Information about results of this program in Illinois provides some insight into the program's effectiveness. A state report shows success in five key areas, as follows:

Attendance (compared with previous term)

67% missed fewer days
7% missed the same number of days

Grade Point Average

69% raised GPA
11% maintained same GPA

Behavioral Problems

56% had fewer problems
27% had similar number of problems

Attitudes

77% improved self-concept
76% improved relationships with others
66% improved attitudes toward study
66% improved attitudes toward school

Progress Observed by Employer

70% became more cooperative with co-workers
58% showed more initiative
71% improved ability to follow directions
67% increased competency for completing job assignments

Cooperative vocational education differs from work experience. The current national youth strategy seems to imply that youth who lack employability skills, basic skills, technical knowledge and job skills need only get experience in public service employment to move into private-sector skilled and semi-skilled jobs. Certainly work experience has some benefit for those youth, but there is no evidence that it alone will accomplish the desired job progression. Co-op programs, on the other hand, stress the coordination of on-the-job learning with in-school development of the needed basic skills, job skills and employability skills.

An example of a public service jobs program which has been successful for disadvantaged youth is the City Youth Employment Program (CYEP) in Pittsburgh. The CETA prime sponsor and the Pittsburgh Public School System, Division of Occupational, Vocational and Technical Education administer this program designed to: 1) give support to needy in-school youth by providing work opportunities in non-profit agencies; 2) provide financial rewards for these work activities; 3) identify occupational-related program needs; and 4) offer educational alternatives, apart from the basic school programs, for exploring the world of work.

Because of its flexibility, cooperative vocational education offers a number of other advantages. Regular and special students can be served in the same programs, thus preventing segregation of disadvantaged and handicapped students into separate programs. Cooperative vocational education can be offered to in-school or out-of-school populations, in either secondary or postsecondary settings, or as part of an alternative school effort.

The Out-Of-School Youth Cooperative Education Program in Texas is designed to reclaim the unskilled, unemployed school drop-out. Program participants are placed in on-the-job training situations for a portion of the day and then return to a classroom situation to receive job related instruction as well as individually prescribed academic programs to meet their personal needs.

In addition, long-established and proven criteria and procedures are in place to provide school credit for on-the-job learning. Finally, co-op programs serve to introduce local employers to youth and help strengthen the business community's interest in and support of education.

Contracted learning is another example of a form of cooperative education. An outstanding example of this approach is in operation in Escanaba, Michigan. In this program, the community college provides the classroom instruction in basic and technical skills, and local businesses are paid to provide on-the-job training to individuals on a less-than-classroom size basis. Capstone is another program type -- which could be successful with disadvantaged students -- where senior high school students, after two years of in-school skill training, go out on-the-job for another two years. As a result, the necessary combination of skills and experiences are provided over an extended time.

Other innovative models in cooperative education can enable vocational education to connect school and jobs for disadvantaged youth. The above are just a few of the many possible approaches.

B. School-Based Youth Enterprises

In a second type of program, vocational-based youth enterprises, young people are introduced to another option -- creating their own employment through small business ownership/management. Through the establishment of actual businesses, students combine the technical skills of the particular business content with entrepreneurial competencies in such areas as finance/accounting. Basic skills in written/oral communications and computation, as well as interpersonal skills, are critical to survival in this learning setting.

In depressed communities where youth unemployment runs exceedingly high and community placements are insufficient, vocationally based youth enterprises can enable students to gain the labor market experience so crucial to private-sector employment. They can further provide youth with an experiential understanding of how our nation's economic system works.

AVA has its own Youth Enterprise Project (YEP) which focuses on the learning/teaching of skills in small business management/ownership. CETA eligible, disadvantaged youth in four local programs operate their own small businesses. These projects are: Arlington, Virginia -- food preparation; Motley, Minnesota -- leather crafts; Kansas City, Missouri -- small engine repair; and Byng, Oklahoma -- two wheel tractor trailers.

Through youth enterprises, students realize the "flip side" of the question, "For whom can I work?" They can ask instead, "How can I create my own work?"

C. Apprenticeship Programs

Vocational education is currently providing related instruction for at least 80-90% of all the apprenticeship programs in this nation. As apprenticeship programs are expanded, vocational education has the capacity to work with members of local

unions to provide appropriate educational programs to undergird the on-the-job training received by apprentices.

D. Home and Community Improvement Projects

Another method for giving students practical experience related to their classroom instruction is through the use of home and community improvement projects. Although students receive no pay for such work, they benefit from the actual completion of activities that make a contribution to the betterment of their homes or communities.

Historically, rural vocational education programs have connected the home with the school through home learning projects. Such activities also have an enormous potential in urban areas where a number of community improvement and community conservation projects could be carried out by students under the supervision of a vocational teacher. These can be valuable learning experiences for students while benefiting the community as well.

E. Vocational Student Organizations

A fifth area in the school-to-work connection is that of student organizations. The vocational student organization, established to be an integral part of instructional programs, is an effective mechanism for developing those personal qualities that are essential to success in the workplace. This is especially important for disadvantaged youth.

It is through the student organization that youth are able to learn how to work with others to achieve common goals. They gain a sense of community and personal identity. They are allowed to indicate their interests and needs and to make choices and to experience the consequences of those choices. Most of all, the student organizations foster a desire within the individual to be a self-starter, to solve his/her own problems.

Student organizations are very important to disadvantaged youth. They provide opportunities for youth to interact with persons of all age ranges. Student organizations also provide role models. Disadvantaged youth sorely need successful images upon which they can pattern their own future expectations. Youth must come in contact with and be influenced by individuals who can serve as concrete examples of desired performance in a work role.

Thus, in this "connection" goal, vocational education can provide: 1) a constant source of coordination between school and work with one person as coordinator; 2) both public service and private sector job opportunities; and 3) a structure through which schools manage job learning.

(2) Vocational Education Can Provide Skill Training in Occupational Areas Where Demand Exists

There is a shortage of skilled workers in this country. A recent study of more than 200 companies, completed by the Futus Company, a large manpower consulting firm, showed that tight labor conditions are causing problems. Turnover is increasing and hiring standards must be lowered in order to fill openings. These shortages increase operating expenses due to: overtime costs, increased wages to attract available workers and the slower work pace maintained by inexperienced and lower-quality workers.

The prediction is that the problem will grow "because the generation arriving at working age is smaller, thus providing fewer workers."

Another study, conducted by the consulting firm of Barnhill-Hayes, showed that qualified female and minority applicants are in especially short supply. The 3,000 executives surveyed cited the scarcity of qualified candidates as the biggest obstacle they face in meeting affirmative action goals.

Today's shortage of qualified workers for skilled clerical, trade and technical jobs will be further accelerated by the fact that even fewer youth will be entering the labor market after 1980. In 1975 there were 16.8 million teenagers between the ages of 16-19 in this country. By 1980 the number will have dropped to 16.7 million and 1985 it is expected to stand at only 14.4 million.

Yet in 1980 the black teenage population is expected to be 2.6 million, up from 2.1 million in 1975. By 1985, it is expected to decline slightly to 2.5 million.

The decrease in the number of young workers will eventually mean a decline in the available work force. Greater productivity will be demanded from both human and technological resources.

The shortage of youth available to enter the labor market will be further compounded by the fact that many of the workers who have been the backbone of American industry since World War II will begin to retire.

Yet, today's unemployed, disadvantaged teenager could be tomorrow's unemployed adult in a nation that nevertheless has a shortage of skilled workers.

In a recent survey by the National Machine Tool Builders' Association, an important component of the defense business, 70 percent of its members reported worrisome shortages of technical workers. Says the association's president, James A. Gray: "We're facing one of the greatest skill shortages in the history of this country."

The Chemical Bank Survey of Small and Medium Sized Businesses in New York -- "Looking Toward the 80's" (Louis Harris and Associates, Inc., November 1979) states that "In spite of their optimism about the future, executives of smaller businesses are currently facing a number of initial problems. Foremost among them . . . is the quality and cost of labor . . . ranked first among problems facing small businesses today, at a close second, finding top quality management, government relations, and taxes."

The greatest disservice which educators can do to youth, especially in depressed communities, is to give them the false illusion of a job which will not exist. While, surely, vocational educators cannot control the labor market or the economy, they can plan through analyses and forecasts in order to train a supply of skilled workers for likely demand.

EXPANDING ACCESS TO PROGRAMS

In meeting these major needs of industry while also meeting the needs of disadvantaged students, through vocational education, our major problem today is one of accessibility. There are simply not enough facilities nor enough qualified staff, equipment and other resources to meet the needs of all disadvantaged youth who could profit from vocational education. A 1979 study of vocational facilities shown as Table 5 reveal the imbalance.

TABLE 5

Distribution of Institutions and Instructional
Stations in Secondary Schools vs. Population

Population Region Type	Institutions		Stational	Population
	Number	Percent	Percent	Percent
A. Central City, Metropolitan Population over 500,000	453	8.1	10.6	22.8
B. Suburb, Metropolitan Population over 500,000	597	10.7	13.5	38.0
C. Central City, Metropolitan Population 100-500,000	368	6.6	8.2	8.9
D. Suburb, Metropolitan Population 100-500,000	277	5.0	6.1	3.6
E. City or Town Population 25-100,000	958	17.3	21.4	3.1
F. Town or Region Population 0-25,000	2,402	43.2	34.5	23.6
G. Service Area not Elsewhere Classified	505	9.1	5.7	NA
Total ²	5,560	100.0	100.0	100.0

¹

Instructional stations.

²

Institutional totals (6,660) do not equal total survey responses (6,693) because some institutions did not respond to the classifying question used in the generation of this table.

Source: National Study of Vocational Education Systems and Facilities, Volume 1, Westat, Inc. and Institutional Development Associates, Inc.

It is essential that we look at ways to stretch our resources in order to combine new resources with existing one to achieve the maximum opportunity for this special group of youth.

Through mainstreaming -- Communities vary widely in their ability to develop their human resources. The idea that one, or even a few, pattern(s) or formula(s) for dealing with youth unemployment are likely to serve all communities is wrong. In planning a program to serve disadvantaged youth we must take into account the endless variations in existing resources.

Possible causes of youth unemployment are inherent in many of the institutions and organizations charged to assist in the process of transition from school to work. Characteristics of institutions which cannot serve disadvantaged youth adequately might include the following: non-existence of services, insufficient quantity of services, inadequate access to services, ineffective services and/or uncoordinated services.

A critical part of our efforts must involve mainstreaming disadvantaged youth into the established system. The value that our society places on equity of opportunity implies that we should not arbitrarily reduce the opportunity of one group of youth by placing them in separate programs, sometimes in separate locations. Such placement is a subtle form of discrimination -- a categorization which will remain with these youth for some time and negatively alter their attitude toward themselves as well as the attitudes of others concerning these young persons' potential. Every effort should be made to make disadvantaged youth feel "a part of the group" in order that they may reap the benefits of learning from their peers.

We can no longer afford to point disadvantaged youth out, pull them out, and keep them out. The price becomes alienation, despair and eventual drop out.

Successful school-to-work transition programs are readily distinguished by their attention to the special population student. This depend in large part upon the enthusiasm and boldness of the school staff -- on their willingness to modify the curriculum and instruction and to provide the needed special services.

Staff members in successful programs are selected for their zeal for working with low-income students. These teachers have the capacity to encourage students to try, to believe in their own ability and in their future. Continuous staff preparation and development is provided for those working with special population students.

To keep special population students in regular classrooms, teachers in these successful programs establish different expectations, content and instructional approaches. These modifications are based firmly on careful inquiry into students' needs and on clear statements of specific short and long-term student outcomes.

Work experience and supervised cooperative education, for example, are sequential and geared to the developmental needs of each student. Participation in student organizations is stressed, so that students can develop the identity, leadership and citizenship skills and motivation that these groups instill. Often the advisor for the student organization is the cooperative coordinator. Where on-the-job learning experiences are not available in the private sector, school-based youth enterprises are operated, so that students gain job experience and entrepreneurial awareness.

However, to mainstream students, we must expand our capacity. Vocational institutions must extend the number of hours in each school day and the number of months in the school year. To do this in many cases will require two full time shifts of staff. Expansions of this type will assure the greatest usage of existing resources.

Through Use of the Community -- The capacity of a community to serve and develop its human resources holds a direct relationship to that community's ability to maintain and attract business and industry, including small businesses and other entrepreneurial enterprises. The Joint Economic Committee, in its report to Congress in January, 1979, pointed out that two major reasons for an industry to decide to locate in a given area are: (1) the quality of the educational system, and (2) the availability of skilled workers. Further, statistics show that half of the jobs today are located within small businesses, those employing twenty people or less, and those which do not have training programs available to their workers.

Thus, through their institutions, urban and depressed rural areas can create new climates which are attractive to large and small, new and expanding business. Greater access to vocational education facilities is a primary factor in a community's economic development.

This investment in capacity building, however, must be planned to serve subsequent generations of young people. Given the extent of the investment, the expectations cannot be short-term.

An example of the development of a vocational-technical system which is yielding continuing benefits and impact is the Appalachian Regional Commission (ARC). New modern facilities built with funding from the Commission have helped develop human resources to impressive extents. They have contributed to increased per capita income, attraction of industry, reduction of drop-out rates, and extremely high employment rates among graduates. As of September, 1977, the Commission had approved funds for approximately 635 vocational education projects -- to enroll 375,000 students. This federal investment has triggered an even larger state and local investment in equipment and facilities.

The employment rate is an astonishing 90 percent among graduates seeking jobs (66.1 percent in full-time training-related occupations, and 23.9 percent in part-time or non-training-related occupations). According to one of its recent reports, "The Commission is attempting to develop a new profile of employment skills in Appalachia through heavy investments in vocational and technical education.

Every effort should be made to utilize all available resources in the community. Quick-start training classes can be mounted in temporary facilities for youth in those occupational areas for which local demand is greatest. In large urban communities, store front community-centered vocational schools, especially for out-of-school youth, can be mounted to train workers in areas such as office occupations. Vocational education has a history of imagination in making the greatest use of existing community resources in order to mount employment skill programs in areas of demand.

In summary, we cannot neglect the critical component of capacity building -- the expansion of a community's physical capacity to develop its human resources in order to maintain and attract employment opportunities. The distinction must remain clear, however, between education's responsibility for employability of the individual and the community's responsibility for employment. Nevertheless, in order to foster employment, the community must enhance its educational services. The cycle is complete then when individuals are appropriately prepared for work that is available.

(3) Vocational Education Can Meet Unique, Individual Student Needs Through Specifically Tailored Programs

Disadvantaged youth require a comprehensive range of services including assessment, individualized instruction, support services, placement and follow-up. Specifically tailored programs must be designed for each student, combining the exact set

of services to meet that student's unique needs.

Assessment: Once a young person has indicated a willingness to enroll in a vocational program, the first step is to conduct an assessment of his or her needs, abilities and interests. Many vocational institutions and community colleges have developed assessment laboratories which allow students to go through a two to six week period of in-depth career assessment. As a result, the institutions are able to formulate intensive educational plans which will enable these students to achieve their goals.

Individualized Instruction: Increasingly vocational education has been moving toward individualized instruction. The obvious advantage of this approach to learning is that students can progress at their own rates. This teaching method works so well that some institutions now use no other type of instruction.

For the disadvantaged student, individualized instruction is an ideal approach because it allows the student as much time as necessary to master the essential competencies. The usual emphasis in manpower programs has been on short-term instruction which does not give these students enough time to learn appropriate skills.

Open Entry, Open Exit: It is critical, for disadvantaged youth, that time flexibility be built into each program. Most of these students need to participate in a vocational program over an extended period. Through the open entry, open exit system, students can enroll at any time and leave when they have achieved their goals.

Lower Student Ratios: Disadvantaged students require closer and more constant attention from their instructors. Classes must be smaller, and in many cases, "one-on-one" approaches are required.

Support Services: These services include assistance in nonwork related areas which nevertheless affect the ability of youth to succeed in the workplace. Support might include assistance in finding suitable living accommodations, clothing, medical, dental and legal help and follow-up monitoring after the transition to work has been made. Social and psychological reinforcement are another important type of support service activity.

Job Placement: Finding a job is the "pay off", the ultimate outcome of education and training. Placement is a continuous, rather than a one-time service since individuals and jobs are both constantly changing.

Job placement, by definition, requires direct and constant ties to the community and its job/labor market. A working relationship must exist between education/training institutions and area business and industry. A "bank" of information about present and future jobs must be current and utilized. Vocational education programs must incorporate in their curricula the particular skills and knowledge which will be required for job placement. Special requirements for credentialling and licensing in certain occupations must be addressed during the preparation for work.

Job placement personnel must know: (1) students -- their capabilities and goals and (2) the job scene -- actual requirements and realistic possibilities. Building the bridge between the two is the task of placement services.

Clearly, the idea of "meeting unique needs" requires individualization based upon extensive assessment and delineation of those needs--academic, experiential, supportive. Disadvantaged students need individual learning plans which are progressive and developmental--leading from play to dreams to adult life. Programs

Through all these program goals and components, a climate can be created wherein disadvantaged youth are motivated and can learn -- where they want to learn. As we have all seen, that is no simple or easy task. In fact, it is rare today. The new Youth Initiative must accomplish the task -- by pulling all of the existing parts together and enabling all the key actors to play their appropriate roles.